

Application No.: 10/635,413

Docket No.: JCLA11963-R

In The Claims:

1. (previously presented) A constant velocity universal joint comprising an outer joint member including a bowl-shaped mouth portion and a stem portion with a serration formed on an outer peripheral surface thereof, the stem portion extending from a bottom portion of the mouth portion in an axial direction, wherein an induction hardened area is formed locally in an area in the bottom portion of the mouth portion of said outer joint member, and is formed on a surface substantially perpendicular to the axial direction in which the stem portion extends, and wherein another induction hardened area is formed in a base portion of said stem portion, and an unhardened area remains sandwiched between the induction hardened area in said base portion of said stem portion and the induction hardened area in the bottom portion of said mouth portion.

Claim 2. (canceled)

3. (previously presented) A constant velocity universal joint according to claim 1, wherein the induction hardened area in the base portion of said stem portion is formed after the induction hardened area in the bottom portion of the mouth portion is formed.

4. (currently amended) A constant velocity universal joint according to claim 1, wherein the induction hardened area in the bottom portion of said mouth portion is formed at the same time when an induction hardened area in a track portion formed on an inner peripheral surface of the outer joint member is formed[[~~fanned~~]].

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Claim 5. (canceled)

6. (original) A constant velocity universal joint according to claim 3, wherein the induction hardened area in the bottom portion of said mouth portion is formed at the same time when an induction hardened area in a track portion formed on an inner peripheral surface of the outer joint member is formed.

7. (previously presented) A constant velocity universal joint comprising an outer joint member including a bowl-shaped mouth portion and a stem portion with a serration formed on an outer peripheral surface thereof, the stem portion extending from a bottom portion of the mouth portion in an axial direction, an outside diameter of a shoulder portion formed on an outer periphery of the bottom portion of the mouth portion being equal to or greater than twice of an outside diameter of the serration of the stem portion, wherein

an induction hardened area is formed locally in an area in the bottom portion of the mouth portion of said outer joint member, and is formed on a surface substantially perpendicular to the axial direction in which the stem portion extends, and

a depth of an induction hardened area in a base portion of the stem portion is set to 3 mm or less.

8. (original) A wheel bearing device comprising:

a constant velocity universal joint according to claim 1;

an outer member having double rows of outer races on an inner periphery thereof;

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an inner member having double rows of inner races to face said outer races, respectively;
and
double rows of rollers incorporated in between the races of said outer member and said inner member, wherein
the constant velocity universal joint is inserted into and fitted with said inner member via the serration.

Claim 9. (canceled)

10. (previously presented) A wheel bearing device comprising;
a constant velocity universal joint according to claim 3;
an outer member having double rows of outer races on an inner periphery thereof;
an inner member having double rows of inner races to face said outer races, respectively;
and
double rows of rollers incorporated in between the races of said outer member and said inner member, wherein
the constant velocity universal joint is inserted into and fitted with said inner member via the serration.

11. (original) A wheel bearing device comprising:
a constant velocity universal joint according to claim 4;
an outer member having double rows of outer races on an inner periphery thereof;

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an inner member having double rows of inner races to face said outer races, respectively;
and
double rows of rollers incorporated in between the races of said outer member and said
inner member, wherein
the constant velocity universal joint is inserted into and fitted with said inner member via
the serration.

Claim 12. (canceled)

13. (original) A wheel bearing device comprising:
a constant velocity universal joint according to claim 6;
an outer member having double rows of outer races on an inner periphery thereof;
an inner member having double rows of inner races to face said outer races, respectively; and
double rows of rollers incorporated in between the races of said outer member and said
inner member, wherein
the constant velocity universal joint is inserted into and fitted with said inner member
via the serration.

14. (original) A wheel bearing device comprising:
a constant velocity universal joint according to claim 7;
an outer member having double rows of outer races on an inner periphery thereof;
an inner member having double rows of inner races to face said outer races, respectively;

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and

double rows of rollers incorporated in between the races of said outer member and said inner member, wherein

the constant velocity universal joint is inserted into and fitted with said inner member via the serration.

Claim 15-16. (canceled)

17. (previously presented) A constant velocity universal joint according to claim 7, wherein an unhardened area remains sandwiched between the induction hardened area in said base portion and that in the bottom portion of said mouth portion.